

Recent IBM Patents

The following patents were recently issued by the countries in which the inventions were made.

United Kingdom

1,435,265	F. L. Challoner and H. D. Varadarajan	Touch Keyboard
1,435,368	H. S. Crouch, D. O. Dodman and A. G. Saunders	Data Storage Apparatus
1,437,883	M. Flinders, M. Kingdom-Hocking, B. H. Middleton, B. I. Palmer, M. C. Pinnell, T. H. Snagge, T. E. Robinson and L. R. Walker	Ticketing System
1,438,343	R. B. Hake, D. R. Page and P. Quarendon	A Computing Aid for Use in Testing Data Processing
1,440,455	M. H. Bosier and C. A. Pollard	A Recording and/or Reproducing Head Assembly for a Disk

United States

3,971,710	L. T. Romankiw	Anodized Articles and Process of Preparing Same
3,978,577	A. Bhattacharyya, M. L. Joshi, C. T. Kroll and R. Silverman	Fixed and Variable Threshold n-Channel MNOSFET Integration Technique
3,978,992	A. P. Mulzet and J. L. Sirico	Positioning Apparatus
3,979,643	R. Pelc	Logic Driver Circuit With Output Protection
3,979,651	C. R. Bringol	Direct Current and Synchronous Motor System
3,979,671	R. G. Meeker, W. J. Scanlon and Z. Segal	Test Fixture for Use in a High Speed Electronic Semiconductor Chip Test System
3,979,699	E. S. Caragliano and H. H. Nick	Directional Coupler Cascading for Signal Enhancement
3,979,723	D. H. Hughes and A. Polischuk-Sawtschenko	Digital Data Communication Network and Control System Therefor
3,979,727	B. N. Catron, E. F. Dumstroff, P. C. Schloss and L. L. Schroeder	Memory Access Control Circuit
3,979,734	W. D. Pricer and J. E. Selleck	Multiple Element Charge Storage Memory Cell
3,979,691	L. Balliet	Acquisition Process in a Phase-locked-loop by Switched Phase Means
3,979,756	E. F. Helinski and J. L. Zable	Method and Apparatus for Merging Satellites in an Ink Jet Printing System
3,979,775	T. A. Schwarz	Magnetoresistive Multitransducer Assembly With Compensation Elements for Thermal Drift and Bias Balancing
3,980,296	J. A. Craft and J. C. Rogers	Duplicating Machine Employing Image Reversing Optical Paths with Front Edge Document Alignment on Document Input and Output
3,980,809	W. C. Cook	Encoding Logic for Reduced Bandwidth Pictorial Data Transmission System
3,980,826	A. X. Widmer	Means of Predistorting Digital Signals
3,981,386	W. A. Abell, Jr., T. R. Field, R. A. Haus and I. D. Shakib	Non Return to Home Rack Shift Selection Mechanism for a Single Element Printer
3,981,497	P. Feinstein, Jr. and G. L. Sokol	Automatic Document Alignment Method and Apparatus for Document Feed Equipment
3,981,844	L. T. Romankiw	Stable Emulsion and Method for Preparation Thereof
3,982,043	H. W. Simpson	Triboelectric Filter and Method of Using It in an Electrophotographic Printer
298 3,982,171	J. E. Gersbach	Gate Current Source

3,982,231	W. A. Bernstein and R. H. Doggett	Prefixing in a Multiprocessing System
3,982,234	O. Voegeli	Hard-magnetic Film Overlay Apparatus and Method for Magnetic Mobile Domain Control
3,982,251	F. Hochberg	Method and Apparatus for Recording Information on a Recording Medium
3,982,316	H. C. Calhoun, L. E. Freed and C. L. Kaufman	Multilayer Insulation Integrated Circuit Structure
3,982,830	R. A. Daniels and A. H. Knight	Magnetic Bead Carryout Reduction by Altering the Developer's Bias Voltage
3,982,918	R. G. Frieser, J. L. Powell and R. R. Tummala	Process for Preparing a Copper Containing Sealing Glass
3,982,943	B. C. Feng, R. H. Flachbart, L. J. Fried and H. A. Levine	Lift-off Method of Fabricating Thin Films and a Structure Utilizable as a Lift-off Mask
3,982,967	S. M. Ku, C. A. Pillus, M. R. Poponiak and R. O. Schwenker	Method of Proton-enhanced Diffusion for Simultaneously Forming Integrated Circuit Regions of Varying Depths
3,982,974	W. A. Edel and J. Regh	Compensation of Autodoping in the Manufacture of Integrated Circuits
3,983,022	R. P. Auyang and H. R. Koenig	Process for Planarizing a Surface
3,983,023	T. H. Baker, M. Ghafghaichi and D. Tuman	Integrated Semiconductor Circuit Master-slice Structure in which the Insulation Layer Beneath Unused Contact Terminals Is Free of Short-circuits
3,983,332	M. A. Patten	Conference Call Circuitry for TDM Signal Exchange
3,983,381	G. D. Jones, Jr.	Digital Automatic Gain Control Circuit
3,983,382	A. Weinberger	Adder With Fast Detection of Sum Equal to Zeroes or Radix Minus One
3,983,389	R. L. Cowardin and G. J. Laurer	Wand for Reading Optically Encoded Graphic Symbols
3,983,402	H. L. Arndt, Jr., D. Balderes, J. R. Dranik and C. J. Lucas	Ion Implantation Apparatus
3,983,419	F. F. Fang	Analog Waveform Transducing Circuit
3,983,479	J. H. Lee, A. V. S. Satya, A. K. Ghatalia and D. R. Thomas	Electrical Defect Monitor Structure
3,983,506	L. J. Rettinger, Jr. and L. Balliet	Acquisition Process in a Phase-locked-loop by Gated Means
3,983,535	N. M. Herbst and J. H. Morrissey	Signature Verification Method and Apparatus
3,983,538	J. W. Jones	Universal LSI Array Logic Modules With Integral Storage Array and Variable Autonomous Sequencing
3,983,543	W. Cordaro	Random Access Memory Read/Write Buffer Circuits Incorporating Complementary Field Effect Transistors
3,983,544	R. T. Dennison, L. B. Freeman, H. J. Kelly and P. T. Liu	Split Memory Array Sharing Same Sensing and Bit Decode Circuitry
3,983,545	W. Cordaro	Random Access Memory Employing Single Ended Sense Latch for One Device Cell
3,983,546	H. H. Zappe	Phase-to-pulse Conversion Circuits Incorporating Josephson Devices and Superconducting Interconnection Circuitry
3,983,547	G. S. Almasi	Three-dimensional Bubble Device
3,983,572	W. S. Johnson	Semiconductor Devices
3,983,578	G. E. Price	Ticket Information Recording and Web Parting Mechanism
3,983,838	R. G. Christensen	Planetary Evaporator
3,983,984	D. de Kler	Ball and Groove Motion Converting Apparatus and Typewriter Selection Apparatus Embodying Same
3,984,039	C. Hawley and P. A. Stevenson	Precision-surface With Dynamically-stiff Air Film Provided by Deep Pools
3,984,582	R. Feder, I. Haller, M. Hatzakis, L. T. Romankiw and E. A. Spiller	Method for Preparing Positive Resist Image
3,984,687	K. H. Loeffler and H. C. Pfeiffer	Shielded Magnetic Lens and Deflection Yoke Structure for Electron Beam Column
3,984,792	B. J. Elliott	Precise Coaxial Attenuator for Picosecond Pulses
3,984,833	D. C. Van Voorhis	Apparatus for Encoding Extended Run-length Codes
3,984,843	L. Kuhn	Recording Apparatus Having a Semiconductor Charge Electrode
3,984,860	J. C. Logue	Multi-function LSI Wafers
3,985,423	S. C. Tseng	Optical Digital to Analog Converter
3,985,449	N. A. Patrin	Semiconductor Color Detector
3,985,507	F. A. Litz, E. S. Mathisen, P. A. Schuman, Jr. and C. R. Valentino	Automatic Test Sample Handling System
3,985,597	L. B. Zielinski	Process for Forming Passivated Metal Interconnection System with a Planar Surface
3,985,915	E. Gipstein, W. M. Moreau and O. U. Need, III	Use of Nitrocellulose Containing 10.5 to 12% Nitrogen as Electron Beam Positive Resists
3,985,962	I. Jones, H. R. Mueller, D. W. Kilchberg and P. A. Zafiropulo	Method of Information Transmission With Priority Scheme in a Time-division Multiplex Communication System Comprising a Loop Line

3,985,968	W. K. Stelzenmuller and E. L. Walker	Multiplex Data Communications Using Acoustical Surface Wave Filters
3,986,015	D. N. Gooding and E. M. Shimp	Arithmetic Unit for Use in a Digital Data Processor and Having an Improved System for Parity Check Bit Generation and Error Detection
3,986,041	F. Buckley, III, M. K. Creamer, Jr. and G. A. Miller	CMOS Digital Circuits With Resistive Shunt Feedback Amplifier
3,986,043	F. Buckley, III, G. A. Miller and V. A. Scotto	CMOS Digital Circuits With Shunt Feedback Amplifier
3,986,047	R. K. Griess	Ramp Release and Reset Circuit for a Three Phase Voltage Regulator
3,986,054	A. A. Hansen and R. D. Lane	High Voltage Integrated Driver Circuit
3,986,057	E. B. Eichelberger and G. J. Robbins	High Performance Latch Circuit
3,986,119	N. H. Hemmer, Jr. and A. D. Valakos	Emergency Communication System
3,986,126	A. M. Gindi, J. J. Hong and W. K. Stelzenmuller	Serial Pulse-code-modulated Retiming System
3,986,140	C. S. Angadiyavar and R. Srinivasan	2, 4, 6 Trisubstituted Pyridine Dye Lasers
3,986,173	U. Baitinger, K. K. Najmann and W. Haug	Memory Circuit
3,986,180	P. E. Cade	Depletion Mode Field Effect Transistor Memory System
3,986,227	R. D. Fathergill, A. M. Howarth and E. L. Soard	Printing System Having a Hot Roll Fuser With a Scraping Blade Cleaner
3,986,778	E. S. Mathisen and A. H. Tong	Spectrophotometer Sample Holder
3,986,901	F. T. Plante and R. F. Sankuer	Controlled Catalyst for Manufacturing Magnetic Alloy Particles Having Selective Coercivity
3,986,912	G. E. Alcorn and J. D. Feeley	Process for Controlling the Wall Inclination of a Plasma Etched Via Hole
3,987,137	E. W. Neumann and W. C. Thomas	Method of Making a Direct Inking Platen
3,987,215	C. A. Cortellino	Resist Mask Formation Process
3,987,216	H. S. Bhatia, H. C. Calhoun, R. L. Melhado and R. H. Schnitzel	Method of Forming Schottky Barrier Junctions Having Improved Barrier Height
3,987,284	W. J. Hogan and A. A. Schwartz	Conic Generator for On-the-fly Digital Television Display
3,987,286	E. I. Muehldorf	Time Split Array Logic Element and Method of Operation
3,987,287	D. T. Cox, W. T. Devine and G. J. Kelly	High Density Logic Array
3,987,291	D. N. Gooding and E. M. Shimp	Parallel Digital Arithmetic Device Having a Variable Number of Independent Arithmetic Zones of Variable Width and Location
3,987,309	H. C. Hamel and K. D. Terlep	Superconductive Sensing Circuit for Providing Improved Signal-to-noise
3,987,374	G. D. Jones, Jr.	Multi-line, Multi-mode Modulator Using Bandwidth Reduction for Digital FSK and DPSK Modulation
3,987,410	W. F. Beausoleil, G. H. Ottaway and V. D. Winkler	Array Logic Fabrication for Use in Pattern Recognition Equipments and the Like
3,987,412	T. H. Morrin, II	Method and Apparatus for Image Data Compression Utilizing Boundary Following of the Exterior and Interior Borders of Objects
3,987,415	W. W. Boyd	Determination and Printout of Reference Line
3,987,490	J. L. Highnote and R. L. O'Day	Rotating Read/Write System for NRZI Data
3,987,530	R. B. Atkin, F. C. Tarmann and J. H. Wong	Heat Fuser Roll and Method of Manufacture
3,987,883	D. P. Darwin and D. K. Rex	Ribbon Lifting Mechanism for a Wire Matrix Printer
3,987,949	D. F. Manning, F. W. Singer and J. J. Student	Forms Bursting Apparatus
3,988,408	F. W. Haining, R. V. Rubino and R. T. Wiley	Stabilization of Printed Circuit Board Core Laminates
3,988,545	K. A. Kuemmerie, E. Port and P. A. Zafiropulo	Method of Transmitting Information and Multiplexing Device for Executing the Method
3,988,617	C. A. Price	Field Effect Transistor Bias Circuit
3,988,619	S. D. Malaviya, M. B. Vora and W. T. Wilson	Random Access Solid-state Image Sensor With Non-destructive Read-out
3,988,715	P. J. Mullan and W. S. Rosenbaum	Multi-channel Recognition Discriminator
3,988,739	G. J. Fan and E. Shapiro	Input Device for Scanning Documents With Magnetic Bubble Printing
3,989,178	D. E. Houser, K. J. Lubert and R. J. Morenus	Wire Maze Penetrating Apparatus
3,989,210	J. W. Berkman and F. C. Pexton	Cable Clamp and Strain Relief Device
3,989,237	W. Goff, Jr. and L. M. Simson	Variable Force Sheet Feeding Mechanism
3,989,372	R. V. Davidge, D. D. James and F. W. Johnson	Photoconductor Cleaning Stations
3,989,385	F. H. Dill and J. P. Hoekstra	Part Locating, Mask Alignment and Mask Alignment Verification System

3,990,045	W. F. Beausoleil and R. Hiller	Array Logic Fabrication for Use in Pattern Recognition Equipments and the Like
3,990,053	B. O. Evans	Stored Program Selector for Electronic Calculator
3,990,060	Y. S. Lin, C. N. Liu and D. T. Tang	Cryptographic Magnetic Bubble Domain Memory
3,990,061	E. W. Pugh	Gapless Propagation Structures for Magnetic Bubble Domains
3,990,109	G. G. Seifert	Multiple Flexible Record Storage Disk Apparatus Having an Access Arm With Enhanced Disk Stabilizing Features
3,990,111	J. F. Elliott	Data Storage Apparatus Employing a Flexible Magnetic Disk